

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP) RENEWAL
OFFICE OF AIR QUALITY**

**Rieth-Riley Construction Co., Inc.
25200 State Road 23
South Bend, Indiana 46614**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 141-14093-00027	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 21, 2001 Expiration Date: August 21, 2006

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permit Conditions	
SECTION B	GENERAL CONDITIONS	7
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
SECTION C	SOURCE OPERATION CONDITIONS	17
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
C.7	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.8	Stack Height [326 IAC 1-7]	
C.9	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.10	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.11	Compliance Requirements [326 IAC 2-1.1-11]	

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]
- C.14 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]
- C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4, 5]
- C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.20 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]
- C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS: hot mix asphalt production process 26

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]
- D.1.2 Particulate Matter 10 Microns (PM₁₀) [326 IAC 2-8-4]
- D.1.3 Particulate Matter (PM) [40 CFR 60.90]
- D.1.4 Particulate Matter (PM) [326 IAC 6-1]
- D.1.5 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1]
- D.1.6 Nitrogen Oxides (NO_x) [326 IAC 2-8-4]
- D.1.7 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]
- D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]
- D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]
- D.1.10 Nonapplicability

Compliance Determination Requirements

- D.1.11 Testing Requirements [326 IAC 2-8-5(a)(1),(4)] [326 IAC 2-1.1-11]
- D.1.12 VOC Emissions
- D.1.13 Sulfur Dioxide Emissions and Sulfur Content
- D.1.14 Used Oil Requirements
- D.1.15 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.16 Visible Emissions Notations
- D.1.17 Parametric Monitoring
- D.1.18 Baghouse Inspections
- D.1.19 Broken or Failed Bag Detection

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.20 Cutback Asphalt Production Rate

D.1.21 Record Keeping Requirements

D.1.22 Record Keeping [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

D.1.23 Reporting Requirements

Certification	33
Emergency Occurrence Report	34
Monthly Report	36
Quarterly Deviation and Compliance Monitoring Report	40

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary hot mix asphalt production source.

Authorized Individual:	Dean K. Logan
Source Address:	25200 State Road 23, South Bend, Indiana 46614
Mailing Address:	P.O. Box 477, Goshen, Indiana 46527-0477
General Source Phone Number:	219 - 875 - 5183
SIC Code:	2951
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) drum mixer, equipped with a baghouse for PM control and exhausted to stack SV1, capacity: 425 tons per hour.
- (b) One (1) drum/mixer burner, firing waste oil as primary fuel, using natural gas, No.2 fuel oil, No.4 fuel oil, propane gas and butane gas as backup fuels, exhausting to Stack SV1, rated at 125 million British thermal units per hour.
- (c) One (1) hot oil heater, firing No.2 fuel oil as primary fuel, using butane gas and propane gas as backup fuels, exhausting to Stack SV2, capacity: 2.0 million British thermal units per hour.
- (d) Two (2) tanks, identified as 13A and 13B, storing liquid asphalt, constructed in 1987, exhausting to Stacks SV5 and SV7, capacity: 20,000 gallons, each.
- (e) One (1) tank, identified as 13C, storing liquid asphalt, constructed in 1965, exhausting to Stack SV6, capacity: 25,000 gallons.
- (f) One (1) tank, identified as 11, storing waste oil or No.4 distillate oil, constructed in 1987, exhausting to Stack SV8, capacity: 17,000 gallons.
- (g) One (1) tank, identified as 12, storing No.2 distillate oil, constructed in 1987, exhausting to Stack SV9, capacity: 25,000 gallons.
- (h) Cold-mix cutback asphalt production.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) A.C. tank heaters, firing No.2 fuel oil as primary fuel, firing propane gas and butane gas as backup fuels, rated at 0.48 million British thermal units per hour, each.
- (b) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM,

OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ / Northern Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Northern Regional Office: 219-245-4870
Facsimile No.: 219-245-4877

Failure to notify IDEM, OAQ and Northern Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

- (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
- (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

-
- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC

2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC

4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on March 15, 1996. The plan includes:

- (a) adequate wetting of unpaved roads as needed to minimize fugitive dust.
- (b) adequate wetting of storage piles as needed to minimize fugitive dust.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not

later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

(a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demon-

strate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.17 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.18 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.20 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) drum mixer, equipped with a baghouse for PM control and exhausted to stack SV1, capacity: 425 tons per hour.
- (b) One (1) drum/mixer burner, firing waste oil as primary fuel, using natural gas, No.2 fuel oil, No.4 fuel oil, propane gas and butane gas as backup fuels, exhausting to Stack SV1, rated at 125 million British thermal units per hour.
- (c) One (1) hot oil heater, firing No.2 fuel oil as primary fuel, using butane gas and propane gas as backup fuels, exhausting to Stack SV2, capacity: 2.0 million British thermal units per hour.
- (d) Two (2) tanks, identified as 13A and 13B, storing liquid asphalt, constructed in 1987, exhausting to Stacks SV5 and SV7, capacity: 20,000 gallons, each.
- (e) One (1) tank, identified as 13C, storing liquid asphalt, constructed in 1965, exhausting to Stack SV6, capacity: 25,000 gallons.
- (f) One (1) tank, identified as 11, storing waste oil or No.4 distillate oil, constructed in 1987, exhausting to Stack SV8, capacity: 17,000 gallons.
- (g) One (1) tank, identified as 12, storing No.2 distillate oil, constructed in 1987, exhausting to Stack SV9, capacity: 25,000 gallons.
- (h) Cold-mix cutback asphalt production.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart I.

D.1.2 Particulate Matter 10 Microns (PM₁₀) [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, emissions of particulate matter 10 microns or less in diameter (PM₁₀) from the aggregate dryer/mixer shall not exceed 0.157 pounds per ton of asphalt produced, including both filterable and condensable fractions.
- (b) The source shall not produce more than one million (1,000,000) tons of asphalt per 365 consecutive day period, equivalent to PM₁₀ emissions of 78.5 tons per year based on the 0.157 pounds of PM₁₀ per ton of asphalt produced. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.3 Particulate Matter (PM) [40 CFR 60.90]

Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I), no owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:

- (a) Contain particulate matter in excess of 0.04 grains per dry standard cubic foot, equivalent to 16.29 pounds per hour at a flow rate of 70,000 acfm and a temperature of 250 degrees Fahrenheit.
- (b) Exhibit twenty (20%) percent opacity, or greater.

D.1.4 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a), the owner or operator shall not allow or permit discharge to the atmosphere of any gases from the one (1) drum mixer which contain particulate matter in excess of 0.03 grains per dry standard cubic foot, equivalent to 12.22 pounds per hour at a flow rate of 72,000 acfm and a temperature of 300 degrees Fahrenheit.

D.1.5 Sulfur Dioxide (SO₂) [326 IAC 2-8-4] [326 IAC 7-1.1-1] [326 IAC 7-2-1]

- (a) Pursuant to 326 IAC 2-8-4, the input of waste oil to the dryer/burner shall be limited to less than 1,743,925 gallons per 365 consecutive day period which is equivalent to SO₂ emissions of less than 93.3 tons per year.
- (b) Pursuant to 326 IAC 7-1.1-2, the sulfur content of the waste oil shall not exceed one percent (1.0%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.
- (c) For purposes of determining compliance based on SO₂ emissions, each gallon of No.2 distillate oil shall be equivalent to 0.6636 gallons of waste oil, each gallon of No.4 distillate oil shall be equivalent to 0.7010 gallons of waste oil, each gallon of propane shall be equivalent to 0.000187 gallons of waste oil, each gallon of butane shall be equivalent to 0.000187 gallons of waste oil, and each million cubic feet of natural gas shall be equivalent to 5.607 gallons of waste oil.
- (d) Pursuant to 326 IAC 7-1.1-2, the sulfur content of the No.2 and No.4 distillate oils shall not exceed five tenth percent (0.5%) by weight. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average. 326 IAC 7-1.1 and 326 IAC 7-2-1 are not federally enforceable.

D.1.6 Nitrogen Oxides (NO_x) [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, the input of propane to the dryer/burner shall be limited to less than 10,315,800 gallons per 365 consecutive day period which is equivalent to NO_x emissions of less than 98.0 tons per year.
- (b) For purposes of determining compliance based on NO_x emissions, each gallon of No.2 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of No.4 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of butane shall be equivalent to 1.105 gallons of propane, each gallon of waste oil shall be equivalent to 0.8421 gallons of propane, and each million cubic feet of natural gas shall be equivalent to 10,000 gallons of propane.

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, liquid binder used in the production of cold mix cutback asphalt shall be limited to less than 1,902 tons of liquid binder per 365 consecutive day period, and the daily average diluent content of the liquid binder shall not exceed eight (8.0%) percent. This is equivalent to VOC emissions of less than 94.7 tons per year.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving), the owner or operator shall: not cause or allow the use of asphalt emulsion containing more than seven (7.0) percent oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March

D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the drum mixer/dryer burner and any control devices.

D.1.10 Nonapplicability

- (a) The requirement from F 141-5489, issued December 11, 1996, Condition D.1.4 to limit input of waste oil to the aggregate dryer/burner has not been included in the renewal. A new waste oil limit was calculated using the latest AP-42 emission factors. New equivalencies for the other fuels have also been calculated. The limits and equivalencies have been included in this renewal as Condition D.1.5.
- (b) The requirement from F 141-5489, issued December 11, 1996, Condition D.1.5 to limit input of butane to the aggregate dryer/burner has not been included in the renewal. A new NO_x limit based on propane was calculated using the latest AP-42 emission factors. New equivalencies for the other fuels have also been calculated. The limits and equivalencies have been included in this renewal as Condition D.1.6.
- (c) The requirement from F 141-5489, issued December 11, 1996, Condition D.1.6 to limit PM emissions from the aggregate dryer/burner to 42.1 pounds per hour has not been included in the renewal. Since this source is an asphalt concrete plant located in St. Joseph County and constructed after June 11, 1973, PM emissions from the aggregate dryer/burner shall be limited by 326 IAC 6-1-2(a). This limit is contained in Condition D.1.4.
- (d) The requirement from F 141-5489, issued December 11, 1996, Condition D.1.7 to limit PM₁₀ emissions from the aggregate dryer/burner to 17.7 pounds per hour has not been included in the renewal. This limit has been replaced with an annual throughput limit of 1,000,000 tons of asphalt produced per year, combined with an emission factor not to exceed 0.157 pounds of PM₁₀ per ton of asphalt produced. This limit is contained in Condition D.1.2.

Thus, Conditions D.1.4, D.1.5, D.1.6 and D.1.7 of F 145-5489 are hereby rescinded.

Compliance Determination Requirements

D.1.11 Testing Requirements [326 IAC 2-8-5(1), (4)] [326 IAC 2-1.1-11]

Pursuant to Condition D.1.12 of FESOP 141-5489-00027, issued on December 5, 1996, the Permittee shall perform PM and PM₁₀ testing in order to demonstrate compliance with Conditions D.1.2, D.1.3, and D.1.4 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

D.1.12 VOC Emissions

Compliance with Condition D.1.7 shall be demonstrated within 30 days of the end of each day based on the liquid binder usage for the 365 consecutive day period.

D.1.13 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million British thermal units heat input by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 125 million British thermal units per hour burner, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.14 Used Oil Requirements

The waste oil burned in the aggregate dryer shall comply with the used oil requirements specified in 329 IAC 13 (Used Oil Management). Pursuant to 329 IAC 13-3-2 (Used Oil Specifications), used oil burned for energy recovery that is classified as off-specification used oil fuel shall comply with the provisions of 329 IAC 13-8 (Used Oil Burners Who Burn Off-specification Used Oil For Energy Recovery), including:

- (a) Receipt of an EPA identification number as outlined in 329 IAC 13-8-3 (Notification),
- (b) Compliance with the used oil storage requirements specified in 329 IAC 13-8-5 (Used Oil Storage), and
- (c) Maintaining records pursuant to 329 IAC 13-8-6 (Tracking).

The burning of mixtures of used oil and hazardous waste that is regulated under 329 IAC 3.1 is prohibited at this source.

D.1.15 Particulate Matter (PM)

In order to comply with Conditions D.1.2, D.1.3 and D.1.4, the baghouse for PM and PM₁₀ control shall be in operation and control emissions from the drum mixer/dryer at all times that the drum mixer/dryer is in operation and exhausting to the outside atmosphere.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.16 Visible Emissions Notations

- (a) Visible emission notations of the conveyers, material transfer points, aggregate storage piles, unpaved roads and the drum mixer/burner stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.17 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the mixer/dryer, at least once per shift when the drying/mixing process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

- (b) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the inlet temperature reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.1.18 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the dryer/burner operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are

optional when venting indoors. All defective bags shall be replaced.

D.1.19 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B - Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) For single compartment baghouses, the material feeding system for the dryer shall cease operation immediately. The associated controlled processes shall be shut down when the material in production has cleared the system. The dryer shall not be operated until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.20 Cutback Asphalt Production Rate

To document compliance with Condition D.1.7, the Permittee shall maintain daily records at the source of the following values:

- (a) Amount of liquid binder used in the production of cold mix cutback asphalt; and
- (b) Average diluent content of the liquid binder.

D.1.21 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records of the amount of asphalt produced per day.
- (b) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the SO₂ and NO_x emission limits established in Conditions D.1.5 and D.1.6.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel usage of each fuel used since last compliance determination period and equivalent sulfur dioxide and nitrogen oxide emissions;
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;

- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (c) To document compliance with Condition D.1.16, the Permittee shall maintain records of visible emission notations of the dryer/burner stack exhaust SV1 once per shift.
- (d) To document compliance with Condition D.1.17, the Permittee shall maintain the following:

Once per shift records of the following operational parameters during normal operation when venting to the atmosphere:

Inlet and outlet differential static pressure.
- (e) To document compliance with Condition D.1.18, the Permittee shall maintain records of the results of the inspections required under Condition D.1.18.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.22 Record Keeping [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

The one (1) tank, identified as 11, with a capacity of 17,000 gallons, the two (2) tanks, identified as 13A and 13B, each with a capacity of 20,000 gallons, and the one (1) tank, identified as 12, with a capacity of 25,000 gallons, shall comply with the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb). These tanks are subject to only 40 CFR Part 60.116b, paragraphs (a) and (b) which requires the Permittee to maintain accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

D.1.23 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2, D.1.5, D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
 CThe Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 CThe Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Monthly Report

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027
Facility: Dryer/mixer
Parameter: Tons of asphalt produced (PM₁₀)
Limit: 1,000,000 tons of asphalt produced per 365 consecutive day period, equivalent to PM₁₀ emissions less than 78.5 tons per year.

Month: _____ Year: _____

Day	tons of asphalt produced (this day)	tons of asphalt produced (last 364 days)	tons of asphalt produced (365 day total)	Day	tons of asphalt produced (this day)	tons of asphalt produced (last 364 days)	tons of asphalt produced (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Monthly Report

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027
Facility: Dryer/mixer
Parameter: Gallons of waste oil burned in the aggregate dryer (SO₂)
Limit: 1,743,925 gallons of waste oil per 365 consecutive day period, where each gallon of No.2 distillate oil shall be equivalent to 0.6636 gallons of waste oil, each gallon of No.4 distillate oil shall be equivalent to 0.7010 gallons of waste oil, each gallon of propane shall be equivalent to 0.000187 gallons of waste oil, each gallon of butane shall be equivalent to 0.000187 gallons of waste oil, and each million cubic feet of natural gas shall be equivalent to 5.607 gallons of waste oil, equivalent to SO₂ emissions less than 93.3 tons per year.

Month: _____ Year: _____

Day	gallons of waste oil or equivalent burned (this day)	gallons of waste oil or equivalent burned (last 364 days)	gallons of waste oil or equivalent burned (365 day total)	Day	gallons of waste oil or equivalent burned (this day)	gallons of waste oil or equivalent burned (last 364 days)	gallons of waste oil or equivalent burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Monthly Report

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027
Facility: Dryer/mixer
Parameter: Gallons of propane burned in the aggregate dryer (NO_x)
Limit: 10,315,800 gallons of propane per 365 consecutive day period, where each gallon of No.2 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of No.4 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of butane shall be equivalent to 1.105 gallons of propane, each gallon of waste oil shall be equivalent to 0.8421 gallons of propane, and each million cubic feet of natural gas shall be equivalent to 10,000 gallons of propane, equivalent to NO_x emissions less than 98.0 tons per year.

Month: _____ Year: _____

Day	gallons of propane or equivalent burned (this day)	gallons of propane or equivalent burned (last 364 days)	gallons of propane or equivalent burned (365 day total)	Day	gallons of propane or equivalent burned (this day)	gallons of propane or equivalent burned (last 364 days)	gallons of propane or equivalent burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

FESOP Monthly Report

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027
Facility: Cutback asphalt production
Parameter: Amount of liquid binder used in the production of cutback asphalt (VOC)
Limit: 1,902 tons of liquid binder used in the production of cutback asphalt per 365 consecutive day period, equivalent to VOC emissions less than 94.7 tons per year

Month: _____ Year: _____

Day	tons of liquid binder used (this day)	tons of liquid binder used (last 364 days)	tons of liquid binder used (365 day total)	Day	tons of liquid binder used (this day)	tons of liquid binder used (last 364 days)	tons of liquid binder used (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Rieth-Riley Construction Co., Inc.
Source Address: 25200 State Road 23, South Bend, Indiana 46614
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477
FESOP No.: 141-14093-00027

Months: _____ **to** _____ **Year:** _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management
Office of Air Quality**

Addendum to the
Technical Support Document for Federally Enforceable State Operating Permit
(FESOP) Renewal

**Rieth-Riley Construction Co., Inc.
25200 State Road 23
South Bend, Indiana 46614**

F 141-14093, Plt ID 141-00027

On July 10, 2001, the Office of Air Quality (OAQ) had a notice published in the South Bend Tribune, South Bend, Indiana, stating that Rieth-Riley Construction Co., Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a stationary hot mix asphalt production source with control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On August 6, 2001, Dean Logan of Rieth-Riley submitted comments on the proposed FESOP Renewal. The summary of the comments is as follows: The permit language, if changed, has deleted language as ~~strikeouts~~ and new language **bolded**.

Comment 1:

Regarding Condition D.1.19 (Broken or Failed Bag Detection):

Sub-section (b) should allow for a normal shut down of a drum mix plant instead of an immediate shut down. This will allow for the clean out of the hot mix asphalt in the drum. The shut down period will take about 10 to 15 minutes. If the plant were to be shut down immediately with hot mix asphalt inside the drum, the hot mix asphalt will cool off after 2 to 3 hours and get hard. After the mix hardens then it will take a jack hammer to get the mix out of the drum.

Response 1:

In order to allow for this drum mix plant to avoid damaging their hot mix asphalt production equipment, Condition 1.19(b) is changed to read as follows. This is consistent with the Broken Bag Condition in the draft General FESOP for asphalt production sources:

D.1.19 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (b) ~~For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B -- Emergency Provisions).~~

For single compartment baghouses, the material feeding system for the dryer shall cease operation immediately. The associated controlled processes shall be shut down when the material in production has cleared the system. The dryer shall not be operated until the failed unit has been repaired or replaced. Operations may

continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. Since the aggregate dryer burner is permitted to burn fuels other than oil, Condition D.1.21 has been changed as follows to clarify that the Permittee must maintain records of all fuels burned in the aggregate dryer burner.

D.1.21 Record Keeping Requirements

- (b) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken daily and shall be complete and sufficient to establish compliance with the SO₂ and NO_x emission limits established in Conditions D.1.5 and D.1.6.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual fuel oil usage **of each fuel used** since last compliance determination period and equivalent sulfur dioxide and nitrogen oxide emissions;

2. In order to effectively limit VOC emissions from the source to less than one-hundred (100) tons per year, Condition D.1.7 must be worded in such a way that both the amount of liquid binder used, as well as the average diluent content of the liquid binder, are limited by the permit.

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, liquid binder used in the production of cold mix cutback asphalt shall be limited to less than 1,902 tons of liquid binder per 365 consecutive day period, **and the daily average diluent content of the liquid binder shall not exceed based upon eight (8.0%) percent diluent present in the asphalt.** This is equivalent to VOC emissions of less than 94.7 tons per year.

3. Condition B.10 (Compliance with Permit Conditions) has been revised to clarify that noncompliance with any requirement of this permit may result in an enforcement action against the Permittee, an action to modify, revoke, reissue or terminate the source's permit, and/or a denial of the Permittee's application to renew the permit as follows:

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, ~~except those specifically designated as not federally enforceable,~~ is grounds for:

- (1) Enforcement action;
- (2) Permit termination, revocation and reissuance, or modification; and

- (3) Denial of a permit renewal application.
 - (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
 - (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.
- 4. A typographical error has been corrected in Condition B.11(a) as follows:
 - B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]
 - (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by **an** authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 5. Condition B.20 has had the word "by" added as follows:
 - B.20 Permit Revision Requirement [326 IAC 2-8-11.1]
 - A modification, construction, or reconstruction is governed **by the requirements of** 326 IAC 2 and 326 IAC 2-8-11.1.
- 6. All references to Compliance Data Section have been changed to Compliance Branch.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Rieth-Riley Construction Co., Inc.
Source Location:	25200 State Road 23, South Bend, Indiana 46614
County:	St. Joseph
SIC Code:	2951
Operation Permit No.:	F 141-14093-00027
Permit Reviewer:	Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Rieth-Riley Construction Co., Inc. relating to the operation of a stationary hot mix asphalt production source. The original FESOP 141-5489-00027, issued on December 5, 1996, expires on December 5, 2001

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) drum mixer, equipped with a baghouse for PM control and exhausted to stack SV1, capacity: 425 tons per hour.
- (b) One (1) drum/mixer burner, firing waste oil as primary fuel, using natural gas, No.2 fuel oil, No.4 fuel oil, propane gas and butane gas as backup fuels, exhausting to Stack SV1, rated at 125 million British thermal units per hour.
- (c) One (1) hot oil heater, firing No.2 fuel oil as primary fuel, using butane gas and propane gas as backup fuels, exhausting to Stack SV2, capacity: 2.0 million British thermal units per hour.
- (d) Two (2) tanks, identified as 13A and 13B, storing liquid asphalt, constructed in 1987, exhausting to Stacks SV5 and SV7, capacity: 20,000 gallons, each.
- (e) One (1) tank, identified as 13C, storing liquid asphalt, constructed in 1965, exhausting to Stack SV6, capacity: 25,000 gallons.
- (f) One (1) tank, identified as 11, storing waste oil or No.4 distillate oil, constructed in 1987, exhausting to Stack SV8, capacity: 17,000 gallons.
- (g) One (1) tank, identified as 12, storing No.2 distillate oil, constructed in 1987, exhausting to Stack SV9, capacity: 25,000 gallons.
- (h) Cold-mix cutback asphalt production.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

This FESOP renewal includes the addition of natural gas, No.2 fuel oil and propane as backup fuels for the drum mixer/burner.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Two (2) A.C. tank heaters, firing No.2 fuel oil as primary fuel, firing propane gas and butane gas as backup fuels, rated at 0.48 million British thermal units per hour, each.
- (b) The following VOC and HAP storage containers: Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) FESOP 141-5489-00027, issued on December 5, 1996 and expires on December 5, 2001;
- (b) AAF 141-8221-00027, issued on March 17, 1997; and
- (c) AAF 141-13801-00027, issued on February 12, 2001.

All conditions from previous approvals were incorporated into this FESOP except the following:

FESOP 141-5489-00027, issued on December 5, 1996

- (a) Conditions D.1.4 and D.1.5 contained fuel usage limitations which limited SO₂ and NO_x emissions from the dryer/burner. These fuel limits were updated using the latest AP-42 emission factors.
- (b) Condition D.1.6 contained a pound per hour PM emission limit pursuant to 326 IAC 6-3-2. Since this source is an asphalt concrete plant located in St. Joseph County and constructed after June 11, 1973, the facility is subject to the PM limit contained in 326 IAC 6-1-2(a).
- (c) Condition D.1.7 contained a PM₁₀ emission limit of 17.7 pounds per hour in order to satisfy the requirements of 326 IAC 2-8-4. This limit has been removed in favor of an annual throughput limit of 1,000,000 tons of asphalt produced per year, combined with an emission factor not to exceed 0.157 pounds of PM₁₀ per ton of asphalt produced.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP renewal application for the purposes of this review was received on March 2, 2001. The application was received timely, more than nine (9) months before the December 5, 2001 expiration of the original FESOP.

Emission Calculations

See pages 1 through 13 of 13 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	52579
PM ₁₀	12356
SO ₂	417
VOC	greater than 100
CO	46.3
NO _x	115

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
TOTAL HAPs *	14.2

* HAPs include benzene, ethyl benzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury and nickel compounds. No single HAP exceeds a potential to emit of greater than ten (10) tons per year.

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM₁₀, SO₂, VOC and NO_x is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Potential to Emit After Issuance

The source, issued a FESOP on December 5, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F 141-5489-00027, issued on December 5, 1996).

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Drum Mixer including Burner (Worst Case)	53.5	less than 78.5	less than 93.3	3.86	46.0	less than 98.0	14.2
Hot Oil Heater (Worst Case)	0.127	0.209	4.51	0.182	0.317	1.34	0.00
Conveying/Handling	4.90	0.490	0.00	0.00	0.00	0.00	0.00
Screening	55.7	5.57	0.00	0.00	0.00	0.00	0.00
Storage Piles	0.499	0.174	0.00	0.00	0.00	0.00	0.00
Unpaved Roads	70.9	14.9	0.00	0.00	0.00	0.00	0.00
Cutback Asphalt	0.00	0.00	0.00	less than 94.7	0.00	0.00	0.00
Insignificant Activities	0.060	0.060	2.13	0.023	0.150	0.643	0.00
Total Emissions	186	less than 100	less than 100	less than 100	46.5	less than 100	Single less than 10 Total less than 25

The PM value for the Drum Mixer/Burner represents the allowable emissions pursuant to 326 IAC 6-1-2(a).

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Maintenance

Pollutant	Status
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

- (a) This asphalt plant is still subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I). No owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:
 - (1) contain particulate matter in excess of 0.04 grains per dry standard cubic foot, equivalent to 16.29 pounds per hour at a flow rate of 72,000 acfm and a temperature of 300 degrees Fahrenheit.
 - (2) exhibit 20 percent opacity, or greater.
- (b) The one (1) tank, identified as 11, with a capacity of 17,000 gallons, is still subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), since the tank was constructed after July 23, 1984. Since the one (1) tank has a capacity less than seventy-five (75) cubic meters, the tank is only subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.

The two (2) tanks, identified as 13A and 13B, each with a capacity of 20,000 gallons, and the one (1) tank, identified as 12, with a capacity of 25,000 gallons, are subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), since the tanks were constructed after July 23, 1984. Since the materials stored in these tanks have a maximum true vapor pressure less than fifteen (15) kiloPascals, these tanks are only subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.
- (c) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Parts 61, 62 and 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x and VOC in St. Joseph County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2 (8)(Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM₁₀, SO₂, VOC, CO and NO_x shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year.

- (a) In order to limit the potential to emit PM₁₀ from the entire source to less than one hundred (100) tons per year, the PM₁₀ emissions from the drum mixer (including the burner) will be limited to 78.5 tons per year. The source has requested a production limit of 1,000,000 tons of asphalt produced per year. This production limit, combined with an emission factor not to exceed 0.157 pounds of PM₁₀ per ton of asphalt produced, is equivalent to 78.5 tons of PM₁₀ per year.
- (b) The applicant has accepted a waste oil fuel limit to the dryer/burner of less than 1,743,925 gallons per year which is equivalent to an SO₂ limit of less than 93.3 tons per year (see page 13 of 13 of Appendix A). The full SO₂ potential emission rate of 6.64 tons per year from the one (1) hot oil heater and the two (2) insignificant tank heaters has been assumed in computing these limits.

For purposes of determining compliance based on SO₂ emissions, each gallon of No.2 distillate oil shall be equivalent to 0.6636 gallons of waste oil, each gallon of No.4 distillate oil shall be equivalent to 0.7010 gallons of waste oil, each gallon of propane shall be equivalent to 0.000187 gallons of waste oil, each gallon of butane shall be equivalent to 0.000187 gallons of waste oil, and each million cubic feet of natural gas shall be equivalent to 5.607 gallons of waste oil.

- (c) Similarly, the applicant has accepted a propane fuel limit to the dryer/burner of less than 10,315,800 gallons per year which is equivalent to an NO_x limit of less than 98.0 tons per year (see page 12 of 13 of Appendix A). The full NO_x potential emission rate of 1.983 tons per year from the one (1) hot oil heater and the two (2) insignificant tank heaters has been assumed in computing these limits.

For purposes of determining compliance based on NO_x emissions, each gallon of No.2 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of No.4 distillate oil shall be equivalent to 1.263 gallons of propane, each gallon of butane shall be equivalent to 1.105 gallons of propane, each gallon of waste oil shall be equivalent to 0.8421 gallons of propane, and each million cubic feet of natural gas shall be equivalent to 10,000 gallons of propane.

- (d) The applicant has also accepted a liquid binder usage limit for the production of cold mix cutback asphalt of less than 1,902 tons per year which is equivalent to VOC emissions of 94.7 tons per year based on 8.0 percent diluent present in the asphalt.

Compliance with the above limits will make the requirements of 326 IAC 2-7 not applicable.

326 IAC 5-1 (Opacity Emissions Limitations)

Since this source is located in St. Joseph County, within the area north of Kern Road and east of Pine Road, pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

326 IAC 6-5 (Fugitive Particulate Emissions Limitations)

Pursuant to 326 IAC 6-5, fugitive particulate matter emissions shall be controlled according to the plan submitted on March 15, 1996. The plan includes:

- (a) adequate wetting of unpaved roads as needed to minimize fugitive dust.
- (b) adequate wetting of storage piles as needed to minimize fugitive dust.

326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

This rule requires levels of sulfur dioxide emissions from the combustion of No.2 distillate and No.4 distillate fuel oils not to exceed 0.5 pounds per million British thermal units of heat input (the equivalent of 0.5% sulfur content at a higher heating value of 0.138 million British thermal units per gallon and a maximum heat input rate of 125 million British thermal units per hour).

This rule also requires levels of sulfur dioxide emissions from the combustion of residual waste oil not to exceed 1.6 pounds per million British thermal units of heat input (the equivalent of 1.062% sulfur content at a higher heating value of 0.142 million British thermal units per gallon and a maximum heat input rate of 125 million British thermal units per hour). The source has requested a voluntary limit of 1.0% sulfur content.

326 IAC 7-2-1 (Sulfur Dioxide Compliance: reporting and methods to determine compliance)

Reports of calendar month or annual average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate shall be provided upon request to the Office of Air Quality.

326 IAC 8-5-2 (Miscellaneous operations: asphalt paving)

No person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March.

State Rule Applicability - Individual Facilities

326 IAC 6-1 (Nonattainment Area Particulate Limitations)

This source is an asphalt concrete plant located in St. Joseph County. However, this source is not subject to 326 IAC 6-1-2(c) (Nonattainment Area Particulate Limitations for Asphalt Concrete Plants), because it was constructed after June 11, 1973. Therefore, pursuant to 326 IAC 6-1-2(a), the owner or operator shall not allow or permit discharge to the atmosphere of any gases from the one (1) drum mixer which contain particulate matter in excess of 0.03 grains per dry standard cubic foot, equivalent to 12.22 pounds per hour at a flow rate of 72,000 acfm and a temperature of 300 degrees Fahrenheit. Compliance with this rule will assure compliance with NSPS Subpart I.

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP. PM and PM₁₀ testing is required for the drum mixer and dryer/burner stack exhaust SV1 within five (5) years of the last compliant stack test in order to assure compliance with 326 IAC 2-2, 326 IAC 2-8-4, 326 IAC 6-1, and NSPS Subpart I as shown in Appendix A.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this source are as follows:

The one (1) drum mixer has applicable compliance monitoring conditions as specified below:

- (a) Visible emissions notations of the baghouse shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and corrective actions for when an

abnormal emission is observed.

- (b) The Permittee shall record the total static pressure drop across the baghouse controlling the one (1) drum mixer, at least once per shift when the dryer/mixer is in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2.0 to 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.
- (c) The inlet temperature to the baghouse shall be maintained within a range of 200-400 degrees Fahrenheit to prevent overheating of the bags and to prevent low temperatures from mudding up the bags. The operational parameters shall be monitored for indications of bag failure. The thermocouple at the inlet has a temperature switch which automatically shuts the burner off if the high end range is exceeded. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the inlet temperature reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for the one (1) drum mixer must operate properly to ensure compliance with 326 IAC 5-1 (Opacity), 326 IAC 6-1 (Nonattainment Area Particulate Limitations), 326 IAC 2-8 (FESOP) and NSPS Subpart I.

Conclusion

The operation of this stationary hot mix asphalt production source shall be subject to the conditions of the attached proposed FESOP Renewal No.: F 141-14093-00027.

Appendix A: Emission Calculations

Company Name: Rieth-Riley Construction Co., Inc.
Plant Location: 25200 State Road 23, South Bend, Indiana 46614
County: St. Joseph
FESOP: F 141-14093
Plt. ID: 141-00027
Date: March 2, 2001
Permit Reviewer: Edward A. Longenberger

I. Potential Emissions

A. Source emissions before controls

<div>Hot Oil Heater on Oil (oil/<100MMBTU/uncontrolled)</div> <div>The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3</div> <div>Pollutant: 2.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr) 138000.0 Btu/gal * 2000 lbs/ton</div> <div><div>P M: 2.0 lbs/1000 gal = 0.127 tons/yr</div><div>PM-10: 3.3 lbs/1000 gal = 0.209 tons/yr</div><div>S O x: 71.0 lbs/1000 gal = 4.507 tons/yr</div><div>N O x: 20.0 lbs/1000 gal = 1.270 tons/yr</div><div>V O C: 0.34 lbs/1000 gal = 0.022 tons/yr</div><div>C O: 5.0 lbs/1000 gal = 0.317 tons/yr</div></div>	<div>Hot Oil Heater (butane)</div> <div>The following calculations determine the amount of emissions created by butane gas @ 0.20 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42 Ch. 1.5, Table 1.5-1</div> <div>Pollutant: 2.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr) 102600.0 Btu/gal * 2000 lbs/ton</div> <div><div>P M: 0.5 lbs/1000 gal = 0.043 tons/yr</div><div>PM-10: 0.5 lbs/1000 gal = 0.043 tons/yr</div><div>S O x: 0.02 lbs/1000 gal = 0.002 tons/yr</div><div>N O x: 15.0 lbs/1000 gal = 1.281 tons/yr</div><div>V O C: 0.60 lbs/1000 gal = 0.051 tons/yr</div><div>C O: 2.1 lbs/1000 gal = 0.179 tons/yr</div></div>
<div>Hot Oil Heater on Gas (gas/<100MMBTU/uncontrolled)</div> <div>The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3</div> <div>Pollutant: 0.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/MMcf) = (tons/yr) 1000 Btu/cf * 2000 lbs/ton</div> <div><div>P M: 1.9 lbs/MMcf = 0.000 tons/yr</div><div>P M-10: 7.6 lbs/MMcf = 0.000 tons/yr</div><div>S O x: 0.6 lbs/MMcf = 0.000 tons/yr</div><div>N O x: 100.0 lbs/MMcf = 0.000 tons/yr</div><div>V O C: 5.5 lbs/MMcf = 0.000 tons/yr</div><div>C O: 84.0 lbs/MMcf = 0.000 tons/yr</div></div>	<div>Hot Oil Heater (propane)</div> <div>The following calculations determine the amount of emissions created by propane gas @ 0.20 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42 Ch. 1.5, Table 1.5-1</div> <div>Pollutant: 2.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr) 91500.0 Btu/gal * 2000 lbs/ton</div> <div><div>P M: 0.4 lbs/1000 gal = 0.038 tons/yr</div><div>PM-10: 0.4 lbs/1000 gal = 0.038 tons/yr</div><div>S O x: 0.02 lbs/1000 gal = 0.002 tons/yr</div><div>N O x: 14.0 lbs/1000 gal = 1.340 tons/yr</div><div>V O C: 1.90 lbs/1000 gal = 0.182 tons/yr</div><div>C O: 3.2 lbs/1000 gal = 0.306 tons/yr</div></div>

Dryer Burner (gas/<100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.0000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.0000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

Dryer Burner (gas/>100MMBTU/uncontrolled)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>125.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf)(tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>1.040</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>4.161</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.329</u> tons/yr
N O x:	190.0 lbs/MMcf =	<u>104.03</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>3.011</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>45.990</u> tons/yr

Post-NSPS = 190

Dryer Burner (gas/>100MMBTU/low nox)

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf)(tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	140.0 lbs/MMcf =	<u>0.000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lb/MMcf =	<u>0.000</u> tons/yr

Dryer Burner (#2 oil)**>100 MMBtu/hr**

The following calculations determine the amount of emissions created by #2 & #1 distillate fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>125.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	<u>138000.0 Btu/gal * 2000 lbs/ton</u>	
P M:	2.0 lbs/1000 gal =	<u>7.935</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>13.092</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>281.685</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>95.217</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.793</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>19.837</u> tons/yr

If Rating >100 mmB

N O x:	24.0
V O C:	0.20

Dryer Burner (#4 oil/ <100MMBTU)

The following calculations determine the amount of emissions created by #4 distillate

fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

Dryer Burner (#4 oil/ >100MMBTU)

The following calculations determine the amount of emissions created by #4 distillate

fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>125.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>7.935</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>13.092</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>297.554</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>95.217</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.793</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>19.837</u> tons/yr

Dryer Burner (waste oil/ vaporizing burner)

The following calculations determine the amount of emissions created by waste

fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

0.000 % Ash
0.000 % Lead

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0</u> Btu/gal * 2000 lbs/ton	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC:	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

Dryer Burner (waste oil/atomizing burner)

The following calculations determine the amount of emissions created by waste

fuel oil @ 1.000 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.11

1.000

% Ash

0.010

% Lead

Pollutant: 125.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
142000.000 Btu/gal * 2000 lbs/ton

P M:	66.0 lbs/1000 gal =	<u>254.472</u> tons/yr
P M-10:	57.0 lbs/1000 gal =	<u>219.771</u> tons/yr
S O x:	107.0 lbs/1000 gal =	<u>412.553</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>61.690</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>3.856</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>8.097</u> tons/yr
Pb:	0.50 lbs/1000 gal =	<u>1.928</u> tons/yr

Dryer Burner (butane)

The following calculations determine the amount of emissions created by butane

gas @ 0.20 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42, Table 1.5-1

Pollutant: 125.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
102600.0 Btu/gal * 2000 lbs/ton

P M:	0.6 lbs/1000 gal =	<u>3.202</u> tons/yr
PM-10:	0.6 lbs/1000 gal =	<u>3.202</u> tons/yr
S O x:	0.02 lbs/1000 gal =	<u>0.096</u> tons/yr
N O x:	21.0 lbs/1000 gal =	<u>112.061</u> tons/yr
V O C:	0.26 lbs/1000 gal =	<u>1.387</u> tons/yr
C O:	3.6 lbs/1000 gal =	<u>19.211</u> tons/yr

Dryer Burner (propane)

The following calculations determine the amount of emissions created by propane

gas @ 0.20 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42, Table 1.5-1

Pollutant: 125.000 MMBtu/hr * 8760 hrs/yr * Ef (lbs/1000 gal) = (tons/yr)
91500.0 Btu/gal * 2000 lbs/ton

P M:	0.6 lbs/1000 gal =	<u>3.590</u> tons/yr
PM-10:	0.6 lbs/1000 gal =	<u>3.590</u> tons/yr
S O x:	0.02 lbs/1000 gal =	<u>0.120</u> tons/yr
N O x:	19.0 lbs/1000 gal =	<u>113.689</u> tons/yr
V O C:	0.25 lbs/1000 gal =	<u>1.496</u> tons/yr
C O:	3.2 lbs/1000 gal =	<u>19.148</u> tons/yr

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>425.0</u>	tons/hr x	8760 hrs/yr =	<u>52122.000</u>	tons/yr
		2000	lbs/ton			
P M-10:	6.5 lbs/ton x	<u>425</u>	tons/hr x	8760 hrs/yr =	<u>12099.750</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30E-06 lbs/ton x	<u>425</u>	tons/hr x	8760 hrs/yr =	<u>0.006</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>425</u>	tons/hr x	8760 hrs/yr =	<u>14.147</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**** aggregate drying: batch-mix plant ****

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u>	tons/yr
		2000	lbs/ton			
P M-10:	4.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3}}{(M/2)^{1.4}} \times k = \underline{\underline{0.003}} \text{ lbs/ton}$$

where k= 1 (particle size multiplier)
U = 12 mph mean wind speed (worst case)
M = 5.0 % moisture

$$P M : \underline{\underline{0.003}} \text{ lbs/ton x } \underline{\underline{403.75}} \text{ tons/hr x } 8760 \text{ hrs/yr} = \underline{\underline{4.897}} \text{ tons/yr}$$

2000 lbs/ton

$$P M-10: 10\% \text{ of PM} = \underline{\underline{0.490}} \text{ tons/yr}$$

Screening PM: 403.75 tons/hr x 0.0315 lbs/ton / 2000 lbs/ton x 8760 hrs/yr = 55.705 tons/yr AP-42 Ch.11.19.2

$$P M-10: 10\% \text{ of PM} = \underline{\underline{5.571}} \text{ tons/yr}$$

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

A. Tri-axle Truck

<u>6.75</u> trips/hr x				
<u>0.212</u> miles/roundtrip x				
8760 hrs/yr =			<u>12535.6</u> miles per year	
For PM	For PM-10			
	$E_f = \{k^*[(s/12)^{0.8}]^*[(W/3)^a]/[(Mdry/0.2)^c]*[(365-p)/365]$			
8.36	= 1.79 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
21	W = 21 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
<u>8.36 lb/mi x</u>		<u>12535.56 mi/yr =</u>	PM	<u>52.39</u> tons/yr
		2000 lb/ton		
<u>1.79 lb/mi x</u>		<u>12535.56 mi/yr =</u>	PM-10	<u>11.21</u> tons/yr
		2000 lb/ton		

B. Misc Other Vehicles

<u>4.82</u> trips/hr x				
<u>0.212</u> miles/roundtrip x				
8760 hrs/yr =			<u>8951.3</u> miles per year	
For PM	For PM-10			
	$E_f = \{k^*[(s/12)^{0.8}]^*[(W/3)^a]/[(Mdry/0.2)^c]*[(365-p)/365]$			
9.65	= 2.01 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
28	W = 28 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
<u>9.65 lb/mi x</u>		<u>8951.3184 mi/yr =</u>	PM	<u>43.20</u> tons/yr
		2000 lb/ton		
<u>2.01 lb/mi x</u>		<u>8951.3184 mi/yr =</u>	PM-10	<u>8.98</u> tons/yr
		2000 lb/ton		

C. Semi Truck

<u>5.4</u> trips/hr x				
<u>0.212</u> miles/roundtrip x				
8760 hrs/yr =			<u>10028.4</u> miles per year	
For PM	For PM-10			
	$E_f = \{k^*[(s/12)^{0.8}]^*[(W/3)^a]/[(Mdry/0.2)^c]*[(365-p)/365]$			
9.21	= 1.93 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
25.5	W = 25.5 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			

	9.21 lb/mi x	10028.448 mi/yr =	PM	<u>46.18</u> tons/yr
		2000 lb/ton		
	1.93 lb/mi x	10028.448 mi/yr =	PM-10	<u>9.69</u> tons/yr
		2000 lb/ton		
All Trucking	Total PM:	<u>141.77</u> tons/yr		
	Total PM-10:	<u>29.89</u> tons/yr		

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)				
=	1.74	lbs/acre/day	for sand	
=	1.16	lbs/acre/day	for stone	
=	1.16	lbs/acre/day	for slag	
=	1.16	lbs/acre/day	for gravel	
=	1.16	lbs/acre/day	for RAP	
where s =	1.5	% silt	for sand	
s =	1.0	% silt	of stone	
s =	1.0	% silt	of slag	
s =	1.0	% silt	of gravel	
s =	1.0	% silt	for RAP	
p =	125	days of rain	greater than or equal to 0.01 inches	
f =	15	% of wind	greater than or equal to 12 mph	
Ep (storage) = Ef * sc * (20 cuft/ton) * (365 days/yr)				
	(2000 lbs/ton)*(43560 sqft/acre)*(25 ft)			
=	0.076	tons/yr	for sand	
=	0.194	tons/yr	for stone	
=	0.000	tons/yr	for slag	
=	0.097	tons/yr	for gravel	
=	0.132	tons/yr	for RAP	
Total PM:	<u>0.499</u>	tons/yr		
where sc = 13 ,000 tons storage capacity for sand				
sc =	50	,000 tons storage capacity	for stone	
sc =	0	,000 tons storage capacity	for slag	
sc =	25	,000 tons storage capacity	for gravel	
sc =	34	,000 tons storage capacity	for RAP	
P M-10:	35% of PM =	<u>0.026</u>	tons/yr	for sand
	35% of PM =	<u>0.068</u>	tons/yr	for stone
	35% of PM =	<u>0.000</u>	tons/yr	for slag
	35% of PM =	<u>0.034</u>	tons/yr	for gravel
	35% of PM =	<u>0.046</u>	tons/yr	for RAP
Total PM-10:		<u>0.174</u>	tons/yr	

Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<u>52326</u> tons/yr	P M:	<u>52333</u> tons/yr	P M:	<u>52333</u> tons/yr	P M:	<u>52579</u> tons/yr
P M-10:	<u>12140</u> tons/yr	P M-10:	<u>12149</u> tons/yr	P M-10:	<u>12149</u> tons/yr	P M-10:	<u>12356</u> tons/yr
S O x:	<u>4.84</u> tons/yr	S O x:	<u>286.19</u> tons/yr	S O x:	<u>302.06</u> tons/yr	S O x:	<u>417.06</u> tons/yr
N O x:	<u>105.37</u> tons/yr	N O x:	<u>96.56</u> tons/yr	N O x:	<u>96.56</u> tons/yr	N O x:	<u>63.03</u> tons/yr
V O C:	<u>3.19</u> tons/yr	V O C:	<u>0.975</u> tons/yr	V O C:	<u>0.975</u> tons/yr	V O C:	<u>4.04</u> tons/yr
C O:	<u>46.31</u> tons/yr	C O:	<u>20.15</u> tons/yr	C O:	<u>20.15</u> tons/yr	C O:	<u>8.41</u> tons/yr
Lead:	<u>0.006</u> tons/yr	Lead:	<u>0.006</u> tons/yr	Lead:	<u>0.006</u> tons/yr	Lead:	<u>1.934</u> tons/yr
HAPs:	<u>14.15</u> tons/yr	HAPs:	<u>14.15</u> tons/yr	HAPs:	<u>14.147</u> tons/yr	HAPs:	<u>14.147</u> tons/yr

butane		propane	
P M:	<u>52328</u> tons/yr	P M:	<u>52329</u> tons/yr
P M-10:	<u>12139</u> tons/yr	P M-10:	<u>12139</u> tons/yr
S O x:	<u>4.60</u> tons/yr	S O x:	<u>4.63</u> tons/yr
N O x:	<u>113.40</u> tons/yr	N O x:	<u>115.03</u> tons/yr
V O C:	<u>1.57</u> tons/yr	V O C:	<u>1.68</u> tons/yr
C O:	<u>19.53</u> tons/yr	C O:	<u>19.46</u> tons/yr
Lead:	<u>0.006</u> tons/yr	Lead:	<u>0.006</u> tons/yr
HAPs:	<u>14.15</u> tons/yr	HAPs:	<u>14.15</u> tons/yr

B. Source emissions after controls

dryer combustion: gas

P M:	1.04 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.001</u> tons/yr
P M-10:	4.16 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.004</u> tons/yr

dryer combustion: #2 oil

P M:	7.93 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.008</u> tons/yr
P M-10:	13.09 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.013</u> tons/yr

hot oil heater combustion: gas

P M:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr
P M-10:	0.000 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.000</u> tons/yr

hot oil heater combustion: #2 oil

P M:	0.127 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.127</u> tons/yr
P M-10:	0.209 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.209</u> tons/yr

hot oil heater combustion: butane

P M:	0.043 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.043</u> tons/yr
P M-10:	0.043 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.043</u> tons/yr

hot oil heater combustion: propane

P M:	0.038 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.038</u> tons/yr
P M-10:	0.038 tons/yr x	<u>1.00000</u> emitted after controls =	<u>0.038</u> tons/yr

dryer combustion: #4 oil

P M:	7.93 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.008</u> tons/yr
P M-10:	13.09 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.013</u> tons/yr

dryer combustion: waste oil

P M:	254.47 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.254</u> tons/yr
P M-10:	219.77 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.220</u> tons/yr

dryer combustion: butane

P M:	3.20 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.003</u> tons/yr
P M-10:	3.20 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.003</u> tons/yr

dryer combustion: propane

P M:	3.59 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>0.004</u>	tons/yr
P M-10:	3.59 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>0.004</u>	tons/yr

aggregate drying:

P M:	52122.00 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>52.122</u>	tons/yr
P M-10:	12099.75 tons/yr x	<u>0.00100</u>	emitted after controls =	<u>12.100</u>	tons/yr

conveying/handling:

P M:	4.90 tons/yr x	<u>1.000</u>	emitted after controls =	<u>4.897</u>	tons/yr
P M-10:	0.49 tons/yr x	<u>1.000</u>	emitted after controls =	<u>0.490</u>	tons/yr

screening

P M:	55.71 tons/yr x	<u>1.000</u>	emitted after controls =	<u>55.705</u>	tons/yr
P M-10:	5.57 tons/yr x	<u>1.000</u>	emitted after controls =	<u>5.571</u>	tons/yr

unpaved roads:

P M:	141.77 tons/yr x	50.00%	emitted after controls =	<u>70.883</u>	tons/yr
P M-10:	29.89 tons/yr x	50.00%	emitted after controls =	<u>14.945</u>	tons/yr

storage:

P M:	0.499 tons/yr x	50.00%	emitted after controls =	<u>0.249</u>	tons/yr
P M-10:	0.174 tons/yr x	50.00%	emitted after controls =	<u>0.087</u>	tons/yr

Emissions after controls (combustion plus production) are as follows:

	Butane	Propane	Gas	#2 Oil	#4 Oil	Waste Oil	
P M:	183.99	183.99	183.98	183.99	183.99	184.24	tons/yr
P M-10:	33.40	33.40	33.41	33.41	33.41	33.62	tons/yr

II. Allowable Emissions

A. The following calculations determine compliance with 326 IAC 6-1-2(a), which limits stack emissions from this plant to 0.03 gr/dscf:

$$\frac{0.03 \text{ grains}}{\text{dscf}} \times \frac{72000.000 \text{ acfm}}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \frac{53.521 \text{ tons}}{\text{yr}}$$

460 + $\frac{528}{300}$ Temp $\frac{100}{100}$ - 5 % moisture *

To meet 326 IAC 6-1-2(a), the following value must be less than the amount calculated above: 52.50 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

limit: 0.5 lbs/MMBtu

$$\frac{0.5 \text{ lbs/MMBtu}}{69 \text{ lbs/1000gal}} \times \frac{138000.0 \text{ Btu/gal}}{227.2 \text{ lbs/1000gal}} = \frac{69.0 \text{ lbs/1000gal}}{0.486}$$

Sulfur content must be less than or equal to 0.486 % to comply with 326 IAC 7 and to limit SO₂ emissions to 99 tons per year or less.

C. The following calculations determine the maximum sulfur content of residual waste fuel oil allowable by 326-IAC 7:

limit: 1.6 lbs/MMBtu

$$\frac{1.6 \text{ lbs/MMBtu}}{227.2 \text{ lbs/1000gal}} \times \frac{142000.000 \text{ Btu/gal}}{227.2 \text{ lbs/1000gal}} = \frac{227.2 \text{ lbs/1000gal}}{1.062}$$

(check burner type)

Sulfur content must be less than or equal to 1.062 % to comply with 326 IAC 7 and to limit SO₂ emissions to 99 tons per year or less.

D. The following calculations determine the maximum sulfur content of distillate #4 fuel oil allowable by 326-IAC 7:

limit: 0.5 lbs/MMBtu

$$\frac{0.5 \text{ lbs/MMBtu}}{69 \text{ lbs/1000gal}} \times \frac{138000.000 \text{ Btu/gal}}{227.2 \text{ lbs/1000gal}} = \frac{69 \text{ lbs/1000gal}}{0.460}$$

Sulfur content must be less than or equal to 0.460 % to comply with 326 IAC 7 and to limit SO₂ emissions to 99 tons per year or less.

III. Limited Potential Emissions

FUEL USAGE LIMITATION: BASED ON NOx

FUEL USAGE LIMITATION FOR BURNER (Gas)

$$\begin{array}{rclclcl} 104.03 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 208060 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 208060 \text{ lbs NOx} & / & 190.0 \text{ lbs NOx} & = & 1095.05 \text{ MMcf} \\ \text{year} & & \text{MMcf} & & \text{year} \\ \\ 1095.05 \text{ MMcf} & * & \frac{98.0 \text{ tons/yr}}{104.03 \text{ tons/yr}} & = & 1031.6 \text{ MMcf} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#2 Oil)

$$\begin{array}{rclclcl} 95.22 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 190434.00 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 190434.00 \text{ lbs NOx} & / & 24 \text{ lbs} & = & 7934.75 \text{ kgal} \\ \text{year} & & 1000 \text{ gal} & & \text{year} \\ \\ 7934.75 \text{ kgal} & * & \frac{98.0 \text{ tons/yr}}{95.22 \text{ tons/yr}} & = & 0.0 \text{ kgal} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl} 95.22 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 190434.00 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 190434.00 \text{ lbs NOx} & / & 24.0 \text{ lbs} & = & 7934.75 \text{ kgal} \\ \text{year} & & 1000 \text{ gal} & & \text{year} \\ \\ 7934.75 \text{ kgal} & * & \frac{98.0 \text{ tons/yr}}{95.22 \text{ tons/yr}} & = & 0.0 \text{ kgal} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl} 61.69 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 123380.00 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 123380.00 \text{ lbs NOx} & / & 16.0 \text{ lbs} & = & 7711.25 \text{ kgal} \\ \text{year} & & 1000 \text{ gal} & & \text{year} \\ \\ 7711.25 \text{ kgal} & * & \frac{98.0 \text{ tons/yr}}{61.69 \text{ tons/yr}} & = & 0.0 \text{ kgal} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Propane)

$$\begin{array}{rclclcl}
 113.69 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 227378.00 \frac{\text{lbs NOx}}{\text{year}} \\
 227378.00 \frac{\text{lbs NOx}}{\text{year}} & / & 19.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 11967.26 \frac{\text{kgal}}{\text{year}} \\
 11967.26 \frac{\text{kgal}}{\text{year}} & * & \frac{98.0 \text{ tons/yr}}{113.69 \text{ tons/yr}} & = & 10315.8 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Butane)

$$\begin{array}{rclclcl}
 112.06 \frac{\text{tons NOx}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 224122.00 \frac{\text{lbs NOx}}{\text{year}} \\
 224122.00 \frac{\text{lbs NOx}}{\text{year}} & / & 21.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 10672.48 \frac{\text{kgal}}{\text{year}} \\
 10672.48 \frac{\text{kgal}}{\text{year}} & * & \frac{98.0 \text{ tons/yr}}{112.06 \text{ tons/yr}} & = & 9333.3 \frac{\text{kgal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION: BASED ON SO2

FUEL USAGE LIMITATION FOR BURNER (Gas)

$$\begin{array}{rclclcl}
 0.329 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 658.00 \frac{\text{lbs SO2}}{\text{year}} \\
 658.00 \frac{\text{lbs SO2}}{\text{year}} & / & 0.6 \frac{\text{lbs SO2}}{\text{MMcf}} & = & 1096.67 \frac{\text{MMcf}}{\text{year}} \\
 1096.67 \frac{\text{MMcf}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{0.33 \text{ tons/yr}} & = & 0.0 \frac{\text{MMcf}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#2 Oil)

$$\begin{array}{rclclcl}
 281.7 \frac{\text{tons SO2}}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 563370.00 \frac{\text{lbs SO2}}{\text{year}} \\
 563370.00 \frac{\text{lbs SO2}}{\text{year}} & / & 71.0 \frac{\text{lbs}}{1000 \text{ gal}} & = & 7934788.7324 \frac{\text{gal}}{\text{year}} \\
 7934788.73 \frac{\text{gal}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{281.69 \text{ tons/yr}} & = & 2628169.0 \frac{\text{gal}}{\text{year}} \text{ FESOP Limit}
 \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (#4 Oil)

$$\begin{array}{rclclcl} \frac{297.6 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 595108 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{595108.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{75.0 \text{ lbs}}{1000 \text{ gal}} & = & 7934773.3333 \frac{\text{gal}}{\text{year}} \\ \\ \frac{7934773.33 \text{ gal}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{297.55 \text{ tons/yr}} & = & 2488000.0 \frac{\text{gal}}{\text{year}} & \text{FESOP Limit} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Waste Oil)

$$\begin{array}{rclclcl} \frac{412.6 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 825106.00 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{825106.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{107.0 \text{ lbs}}{1000 \text{ gal}} & = & 7711271.03 \frac{\text{gal}}{\text{year}} \\ \\ \frac{7711271.03 \text{ gal}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{412.55 \text{ tons/yr}} & = & 1743925.2 \frac{\text{gal}}{\text{year}} & \text{FESOP Limit} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Propane)

$$\begin{array}{rclclcl} \frac{0.12 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 240.00 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{240.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{0.02 \text{ lbs}}{1000 \text{ gal}} & = & 12000000.00 \frac{\text{gal}}{\text{year}} \\ \\ \frac{12000000.00 \text{ gal}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{0.12 \text{ tons/yr}} & = & 0.0 \frac{\text{gal}}{\text{year}} & \text{FESOP Limit} \end{array}$$

FUEL USAGE LIMITATION FOR BURNER (Butane)

$$\begin{array}{rclclcl} \frac{0.096 \text{ tons SO}_2}{\text{year}} & * & 2000 \frac{\text{lbs}}{\text{ton}} & = & 192.00 \frac{\text{lbs SO}_2}{\text{year}} \\ \\ \frac{192.00 \text{ lbs SO}_2}{\text{year}} & / & \frac{0.02 \text{ lbs}}{1000 \text{ gal}} & = & 10666666.67 \frac{\text{gal}}{\text{year}} \\ \\ \frac{10666666.67 \text{ gal}}{\text{year}} & * & \frac{93.3 \text{ tons/yr}}{0.096 \text{ tons/yr}} & = & 0.0 \frac{\text{gal}}{\text{year}} & \text{FESOP Limit} \end{array}$$

§ 60.90

(1) The emission rate (E) of acid mist or SO₂ shall be computed for each run using the following equation:

$$E = (CQ_{sd}) / (PK)$$

where:

E=emission rate of acid mist or SO₂ kg/metric ton (lb/ton) of 100 percent H₂SO₄ produced.

C=concentration of acid mist or SO₂, g/dscm (lb/dscf).

Q_{sd}=volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P=production rate of 100 percent H₂SO₄, metric ton/hr (ton/hr).

K=conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 8 shall be used to determine the acid mist and SO₂ concentrations (C's) and the volumetric flow rate (Q_{sd}) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(3) Suitable methods shall be used to determine the production rate (P) of 100 percent H₂SO₄ for each run. Material balance over the production system shall be used to confirm the production rate.

(4) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O₂ concentration and, if required, CO₂ concentration.

(ii) The SO₂ or acid mist emission rate is calculated as described in § 60.84(d), substituting the acid mist concentration for C_s as appropriate.

[54 FR 6666, Feb. 14, 1989]

40 CFR Ch. I (7-1-00 Edition)

Subpart I—Standards of Performance for Hot Mix Asphalt Facilities

§ 60.90 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.

[42 FR 37936, July 25, 1977, as amended at 51 FR 12325, Apr. 10, 1986]

§ 60.91 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Hot mix asphalt facility* means any facility, as described in § 60.90, used to manufacture hot mix asphalt by heating and drying aggregate and mixing with asphalt cements.

[51 FR 12325, Apr. 10, 1986]

§ 60.92 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

Environmental Protection Agency

§ 60.101

(2) Exhibit 20 percent opacity, or greater.

[39 FR 9314, Mar. 8, 1974, as amended at 40 FR 46259, Oct. 6, 1975]

§ 60.93 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.92 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf).

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

[54 FR 6667, Feb. 14, 1989]

Subpart J—Standards of Performance for Petroleum Refineries

§ 60.100 Applicability, designation of affected facility, and reconstruction.

(a) The provisions of this subpart are applicable to the following affected facilities in petroleum refineries: fluid catalytic cracking unit catalyst regenerators, fuel gas combustion devices, and all Claus sulfur recovery plants except Claus plants of 20 long tons per day (LTD) or less. The Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility, provided it processes gases produced within a petroleum refinery.

(b) Any fluid catalytic cracking unit catalyst regenerator or fuel gas combustion device under paragraph (a) of this section which commences construction or modification after June 11, 1973, or any Claus sulfur recovery plant under paragraph (a) of this section which commences construction or modification after October 4, 1976, is subject to the requirements of this subpart except as provided under paragraphs (c) and (d) of this section.

(c) Any fluid catalytic cracking unit catalyst regenerator under paragraph (b) of this section which commences construction or modification on or before January 17, 1984, is exempted from § 60.104(b).

(d) Any fluid catalytic cracking unit in which a contact material reacts with petroleum derivatives to improve feedstock quality and in which the contact material is regenerated by burning off coke and/or other deposits and that commences construction or modification on or before January 17, 1984, is exempt from this subpart.

(e) For purposes of this subpart, under § 60.15, the “fixed capital cost of the new components” includes the fixed capital cost of all depreciable components which are or will be replaced pursuant to all continuous programs of component replacement which are commenced within any 2-year period following January 17, 1984. For purposes of this paragraph, “commenced” means that an owner or operator has undertaken a continuous program of component replacement or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of component replacement.

[43 FR 10868, Mar. 15, 1978, as amended at 44 FR 61543, Oct. 25, 1979; 54 FR 34026, Aug. 17, 1989]

§ 60.101 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A.

(a) *Petroleum refinery* means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through redistillation, cracking or reforming of unfinished petroleum derivatives.

(b) *Petroleum* means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

(c) *Process gas* means any gas generated by a petroleum refinery process unit, except fuel gas and process upset gas as defined in this section.

(d) *Fuel gas* means any gas which is generated at a petroleum refinery and